APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,293	04/19/2001	Ichiro Nakao	2001_0463A	9622

513 7590 03/16/2004		EXAMINER
WENDEROTH, LIND & PONACK, L.L.P.		SUKHAPHADHANA, CHRISTOPHER T
2033 K STREET N. W.		
SUITE 800	ART UNIT	PAPER NUMBER
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DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .
2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-12* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-12* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *19 April 2001* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☒ All   b) ☐ Some * c) ☐ None of:
       1. ☒ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Information Disclosure Statement

1.   Examiner believes Applicant listed and provided a non-relevant reference in the IDS filed

09 August 2001. The IDS refers to JP 08-2494**32**, while the specification refers to JP 08-2494**23**

(e.g. page 1, line 22). The Examiner has considered the 32 reference and considered it non-

relevant. Furthermore, the Examiner is listing the 23 reference as considered on the PTO-892

form accompanying this action.

Drawings

2.   The drawings are objected to because in Fig 16, **ref S1606**, consider placing the word

"COORDINATE" all on one line. Furthermore, in Fig 19, **ref no S1906**, consider replacing

"RASE LIME SEGMENTS" with --ERASE LINE SEGMENTS--. A proposed drawing

correction or corrected drawings are required in reply to the Office action to avoid abandonment

of the application. The objection to the drawings will not be held in abeyance.

Specification

3.   The disclosure is objected to because of the following informalities: On **page 1, line 22,**

consider replacing "when character an input frame" with --when a character input frame--.

4.   Furthermore, the lengthy specification has not been checked to the extent necessary to

determine the presence of all possible minor errors. Applicant's cooperation is requested in

correcting any errors of which applicant may become aware in the specification.

5.   Appropriate correction is required.

Examiner's Comments

6.   The term "operable to" does not positively define a claim limitation in U.S. practice. 35 U.S.C. 112, second paragraph, requires the applicant to particularly point out and distinctly claim the subject matter that is regarded as the invention. Therefore, claims should be defined by what a feature "does", and not what it is "operable" to do. This term, while not indefinite, does not positively define or further limit the invention. Therefore, in accordance with the plain meaning of the word "operable", so long as it is *possible* to perform the recited function (e.g. if properly adjusted, modified, or programmed) using a prior art reference, then the claim limitation can be met by the reference.

7.   In light of the previous paragraph, **claims 1-12** could be rejected by any prior art reference capable of being programmed to perform, e.g. a coordinate string detection, input completion judgement, and segmentation recognition. The Examiner recommends rewording the claims to positively recite the claimed features, e.g. change "operable to detect" to --detecting-- or --that detects--.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9.   **Claims 1-4 and 6-12** are rejected under 35 U.S.C. 102(b) as being anticipated by

Kawamura et al (JP 11-025224, cited in IDS filed 09 August 2001, references made to machine

translation provided with PTO-892 in this action, "Kawamura").

10.   In regards to **claim 1**, Kawamura discloses a handwritten character recognition apparatus

(drawing 1) having a character string input area (drawing 3, ref no 33) of a size that allows a

plurality of characters to be handwritten thereon for a user to input a handwritten character

string, comprising: a coordinate string detection unit (ref no 16, paragraph 46 and 67) detecting a

coordinate string of each stroke that makes up an input handwritten character string, an input

completion judgement unit (paragraph 77) judging, when a first coordinate of one of the strokes

(stroke of the beginning of "being the weather", paragraph 77) is detected in a first area (ref 331-

1, paragraph 77) which is at a side (note in drawing 3, ref 331-1 is on the "top" side of ref 33) of

the character string input area (ref 33) where writing of the handwritten character string starts

(note in drawing 8 and paragraph 69, the handwritten character string "it is fine today" is started

in 331-1), whether an input of an immediately preceding handwritten character string ("it is

good", paragraph 77) is complete, and a segmentation recognition unit (ref no 13, paragraph 44)

segmenting, when the input completion detection unit judges the input to be complete (paragraph

77), stroke strings for each character from all the strokes of the immediately preceding

handwritten character string, recognize each character (paragraph 78), and output a character

string which is a recognition result (ref 311, drawing 10 and 11, and paragraph 78).

        Please note: **side** - An area separated from another area by an intervening feature, such as

a line or barrier: *on this side of the Atlantic; the district on the other side of the railroad tracks.*

The American Heritage® Dictionary of the English Language, Fourth Edition

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11.   In regards to **claim 2**, Kawamura further discloses the apparatus wherein the input

completion judgement unit including: a first coordinate judgement unit (paragraph 77) judging,

when an X value of a first coordinate of a stroke is X1 or less, X1 being a width of the first area,

that the first coordinate is in the first area (paragraph 77).

        Note that as shown in drawing 3 and paragraph 51, the top part of writing input area 33 is

divided into two sections, 331-1 and 332-1. In paragraph 77, Kawamura judges completion when

a user writes in 331-1, thus there is inherently a judgement unit distinguishing between 331-1

and 332-1. In other words, Kawamura judges, when an X value of a first coordinate (stroke of

the beginning of "being the weather", paragraph 77) of a stroke is X1 (boundary between 331-1

and 332-1, drawing 3) or less, X1 being a width of the first area, that the first coordinate is in the

first area.

12.   In regards to **claim 3**, in light of the Examiner's Comments above, Kawamura further

discloses the input completion judgement unit further including: an X1 setting unit (ref no 19,

paragraph 48) operable to receive a value of X1 according to a size of a handwritten character

written by the user, the first coordinate judgement unit judging according to the received value of

X1.

        The display and control section 19 of Kawamura has the capacity to be programmed

according to the limitations of claim 3.

13.   In regards to **claim 4**, Kawamura further discloses the apparatus wherein the input

completion unit includes: an input time measurement unit (ref no 16, paragraph 66) measuring a

first input time (next stroke, paragraph 66) which is an input time of a first coordinate of each

stroke, and a second input time (note of the Nth current stroke, paragraph 66) which is an input

time of a last coordinate of each stroke, and a time judgement unit (stroke input... beyond

predetermined time, paragraph 79) judging, when a time difference between the first input time

of a stroke and a second input time of an immediately preceding stroke is at least a

predetermined time, that the input of the immediately preceding handwritten character string is

complete (The character string recognition... is started, paragraph 79).

14.   In regards to **claim 6**, Kawamura further discloses the apparatus wherein the input

completion judgement unit includes: a stroke area judgement (paragraph 72) unit judging that the

input of the immediately preceding character string ("Today's", paragraph 72) is complete when

a first coordinate of a stroke thereof (notes of the stroke of the "good" beginning, paragraph 72)

is in a second area (ref no 331-2, paragraph 71) which is an area at the opposite side ("bottom" of

ref no 33) of the character string input area to the first area.

15.   In regards to **claim 7**, Kawamura further discloses the apparatus further comprising: a

display unit (ref no 33, drawing 3), positioned under a transparent tablet which makes up the

character string input area, successively displaying strokes (drawings 8, 9, and 10) by linking the

coordinates of each coordinate string detected by the coordinate string detection unit by line

segments, and an area display control unit (ref no 19, paragraph 48) controlling a display state of

the display unit so as to make the first area and the second area visually recognizable (ref no 331-

1 and 331-2, drawing 3).

16.   In regards to **claim 8**, Kawamura further discloses the apparatus further comprising: a

display unit (ref no 33, drawing 3), displaying a stroke (drawings 8, 9, and 10) by linking the

coordinates of each coordinate string successively detected by the coordinate string detection

unit, and an erasing unit (character string note frame 331-1 is eliminated, paragraph 75) operable

to erase all strokes that make up the immediately preceding handwritten character string when

the input completion judgement unit judges the input thereof to be complete.

17.   In regards to **claim 9**, most of the elements set forth in this claim have been addressed in

the argument of claim 7.

The additional limitation of the coordinate string detection unit being a transparent tablet

is taught by Kawamura in paragraphs 48 and 69.

18.   In regards to **claim 10**, Kawamura discloses a handwritten character recognition

apparatus (drawing 1) having a character string input area (drawing 3, ref no 33) of a size that

allows a plurality of characters to be handwritten thereon for a user to input a handwritten

character string, comprising: a coordinate string detection unit (ref no 16, paragraph 46 and 67)

detecting a coordinate string of each stroke that makes up an input handwritten character string, a

display unit (ref no 33, drawing 3), positioned under a transparent tablet which makes up the

character string input area, successively displaying strokes (drawings 8, 9, and 10) by linking

coordinates detected by the coordinate value detection unit by line segments, the coordinate

string detection unit being a transparent tablet (paragraphs 48 and 69), a first line segment

erasing unit (character string note frame 331-1 is eliminated, paragraph 75) erasing line segments

displayed in a judgement area (ref no 331-1, paragraph 75) which is an area a predetermined

distance apart (distance between ref no 331-1 and ref no 331-2, drawing 3) from the last

coordinate of a stroke (stroke being in ref no 331-2) detected by the coordinate string detection

unit in a direction towards the side (note in drawing 3, ref 331-1 is on the "top" side of ref 33) of

the character string input area (ref no 33) where writing of the handwritten character string starts

(note in drawing 8 and paragraph 69, the handwritten character string "it is fine today" is started

in 331-1), an input completion judgement unit (paragraph 77) judging, when the coordinate

string detection unit detects the first coordinate of a stroke in the judgement area (stroke of the

beginning of "being the weather", paragraph 77), that an input of an immediately preceding

handwritten character string ("it is good", paragraph 77) is complete, a second line segment

erasing unit (the hand on character string note frame 331-2 are eliminated, paragraph 78) erasing

remaining line segments from the character string input area (ref no 33), excluding the line

segments in the judgement area (drawing 9 and 10), and a segmentation recognition unit (ref no

13, paragraph 44) segmenting, when the input completion detection unit judges the input to be

complete (paragraph 77), stroke strings for each character from all the strokes of the immediately

preceding handwritten character string ("it is good", paragraph 77), recognize each character

(paragraph 78), and output a character string which is a recognition result (ref 311, drawing 10

and 11, and paragraph 78).

19.   In regards to **claims 11 and 12**, all the elements set forth in these claims have been

addressed in the argument of claim 1.

Claim Rejections - 35 USC § 103

20.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

21.   **Claims 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura et al

(JP 11-025224, cited above, "Kawamura") as applied to claim 1, in combination with Kamei (JP

01-068896 aka JP 64-68896, newly cited, "Kamei").

22.   In regards to **claim 5**, Kawamura discloses in paragraph 79 the time judgement unit

judging that the input of the immediately preceding handwritten character string is complete

when the input thereof ceases for a at least the predetermined time.

Kawamura does not expressly disclose the input completion judgement unit including: a

judgement time setting unit operable to receive a setting of a predetermined time according to a

speed of input of handwriting of the user.

Kamei teaches in the second-to-last line of the abstract, a judgement time setting unit

operable to receive a setting of a predetermined time according to a speed of input of

handwriting of the user.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to incorporate Kamei's time setting unit into Kawamura's apparatus because it will provide the

user with a customizable way to save effort by not having to push buttons or flip switches to

begin character recognition processing.

Allowable Subject Matter

23.   **Claim 3** is objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in light of the Examiner's Comments in independent form including all of

the limitations of the base claim and any intervening claims.

Conclusion

24.   In presenting amendments, please also consider: **1)** JP 61-097790 A (16 May 1986) as a substitute reference for JP 01-068896 A in the 35 USC 103(a) rejection above; **2)** the Kawamura reference above in combination with Fig 1 of U.S. Patent 6,167,441, for arguments directed to Kawamura having two character string lines instead of one; and **3)** an obvious modification of Kawamura where boxes 332-1 and 332-2 receive the same relevant properties as boxes 331-1 and 331-2 used in rejections above.

25.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher T. Sukhaphadhana whose telephone number is 703-306-4148. The examiner can normally be reached on 9a-4p M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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